

ASAP - Serge! Charge to 00062
Dart Aerospace Ltd.

Date: Thursday, 18/01/2007 7:42:02 AM
User: Lise Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services
 Job Number : 30312
 Estimate Number : 12651
 P.O. Number : N/A
 This Issue : 18/01/2007 S.O. No. : N/A
 Prsh Rev. : NC
 First Issue : N/A Type : SMALL /MED FAB
 Previous Run : N/A
 Written By :
 Checked & Approved By :
 Comment : Est Rev :A New Issue 07-01-16 JLM

Drawing Name : R44 WEARPLATE
 Part Number : D35651
 Drawing Number : D3565 UNDER REVIEW
 Project Number : N/A
 Drawing Revision : U/R
 Material : N/A
 Due Date : 25/01/2007 Qty:
 Um: Each

Additional Product

Job Number:



Seq. #:	Machine or Operation:	Description :
1.0	M304516GA	304/316 .060" Sheet 0.060" M101873 M 07 01 31 ①
		Comment: Qty.: 0.3759 sf(s)/Unit Total : 0.7518 sf(s) 304/316 .060" Sheet 0.060" Batch: M101463 M 07 01 18 SAD M101873 6 SAD ②
2.0	WATER JET	FLOW WATER JET
		Comment: FLOW WATER JET 1-Cut as per Dwg D3565 M 07 01 31 ① Dwg Rev: U/R M 07 01 18 ② Prog Rev: U/R M 07 01 18 SAD 07/02/05 ⑥ ② 2-Deburr if necessary M 07 01 18 M 07 01 31 ① ②
3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE M 07 01 18 SAD 07/02/05 ⑥ ②
4.0	QC8	SECOND CHECK M 07 01 18 ③
5.0	BRAKE NC	NC BRAKE N/A SB 07/01/19 ③
		Comment: NC BRAKE form 90 deg bend as per Dwg D3565

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: R44 WEARPLATE

Job Number: 30312

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Job Number:



Seq. #: Machine Or Operation:

Description :

6.0 QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

RE 07/02/05

7.0 SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Form "Cups" using DT8902 FORMING TOOL.

RE 02/02/05

2-Open Holes to .257" as per Dwg D3565 after forming.

N/A

8.0 QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

M 07/02/06

9.0 LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld hard facing as per Dwg D3565 using DT8903 Holding Plate

A/R 2059B Hard Coat rod

Batch: M02755

WELD INSPECTION

M 07/02/06 ⑥

10.0 QC5/9



Comment: WELD INSPECTION

M 07-02-06 ⑥

11.0 POWDER COATING

POWDER COATING



M 101601

6X

Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

M-A/Y

07/02/06

12.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

RE 07-02-06 ⑥

13.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

N/A
Ser Eng. use X 4
Ser HAI X 2
QH W (00062)

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Drawing Name: R44 WEARPLATE

Job Number: 30312

Part Number: D35651

Job Number:



Engineering APPROVAL
Project Manager

CB
07.02.07

Seq. #: Machine Or Operation:

Description :

14.0 QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

CB. 07.02.07

Job Completion



CB 07.02.07

PART WENT TO HAI. PART NOT APPROVED AND NOT AIRWORTHY

CB 07.07.13

DART AEROSPACE LTD	Work Order:	30312
Description: R44 Warplate	Part Number:	D3565-1
Inspection Dwg: D3565 U/R, Rev: U/R		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

x Fi

First Article

x P

Prototype

Measured by:	Mr. M
Date:	07/01/18

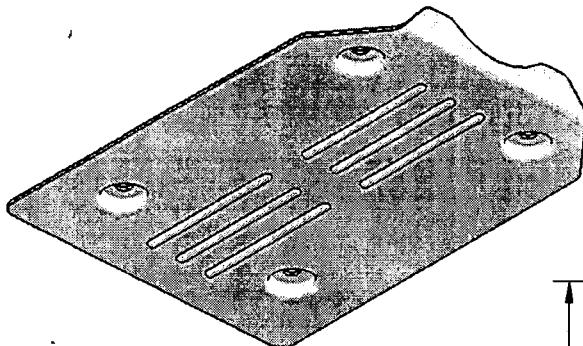
Audited by:	<u>AA</u>
Date:	<u>07/01/08</u>

Prototype Approval:	CB
Date:	07.02.07

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

PRELIMINARY ISSUE

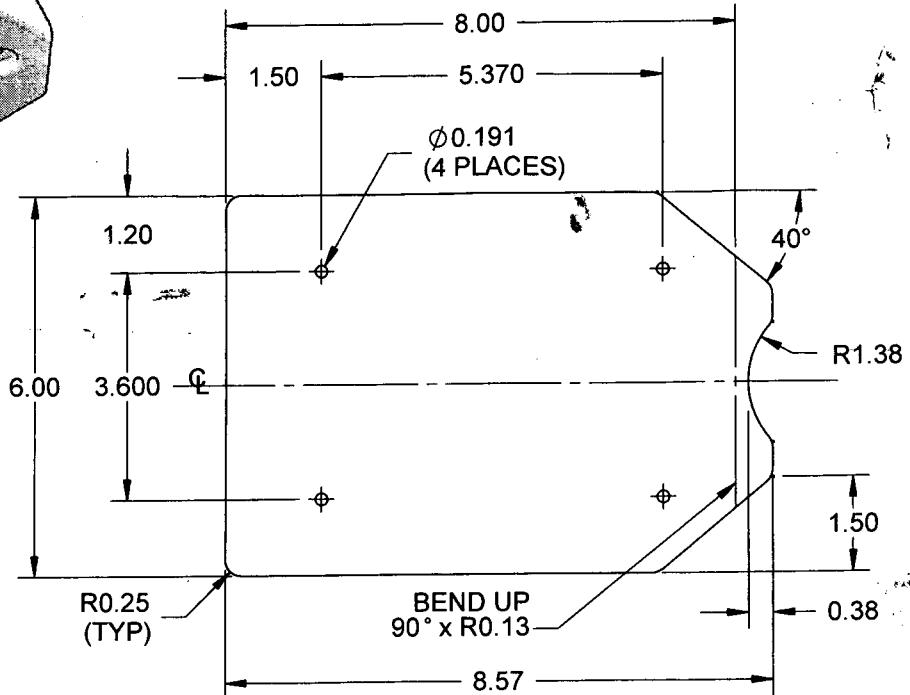
DESIGN CB	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3565	REV. A SHEET 1 OF 1
DATE 07.01.09		TITLE R44 WEARPLATE	SCALE 1:1
REV A	DATE 07.01.09	DESCRIPTION NEW ISSUE	



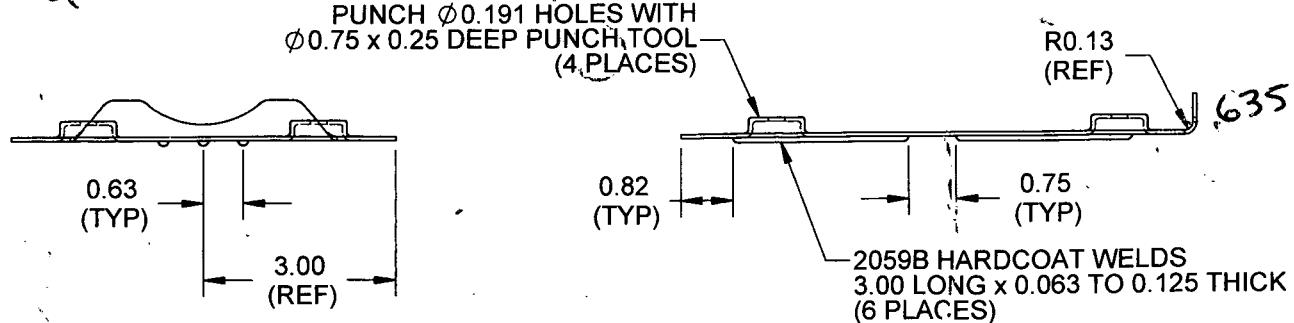
UNDER REVIEW

07.01.12 CB

4073



D3565-1F FLAT PATTERN



D3565-1 R44 WEARPLATE

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 20 GAUGE (0.038 THICK), (REF DART SPEC M304S20GA)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "GREY SANTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) IDENTIFY WITH DART P/N "D3565-1F" USING FINE POINT PERMANENT INK MARKER
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX
- 7) WELD PER QSI 004
- 8) PART IS SYMMETRIC ABOUT \AA

DART AEROSPACE LTD	Work Order:	30312
Description: R44 Wearplate	Part Number:	D3565-1
Inspection Dwg: D3565 Rev: U/R		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

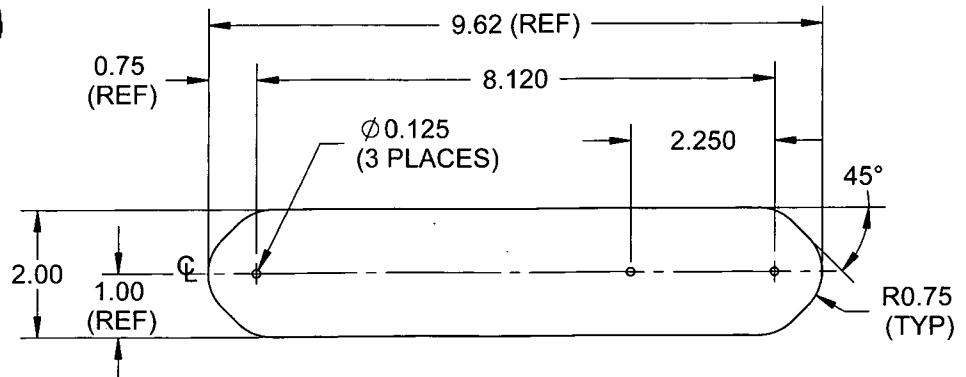
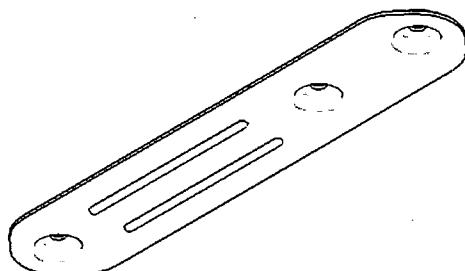
X First Article X Prototype

Measured by:	<i>M M</i>	Audited by:	<i>PB</i>	Prototype Approval:	<i>CB</i>
Date:	07.01.31	Date:	07.02.07	Date:	07.02.07

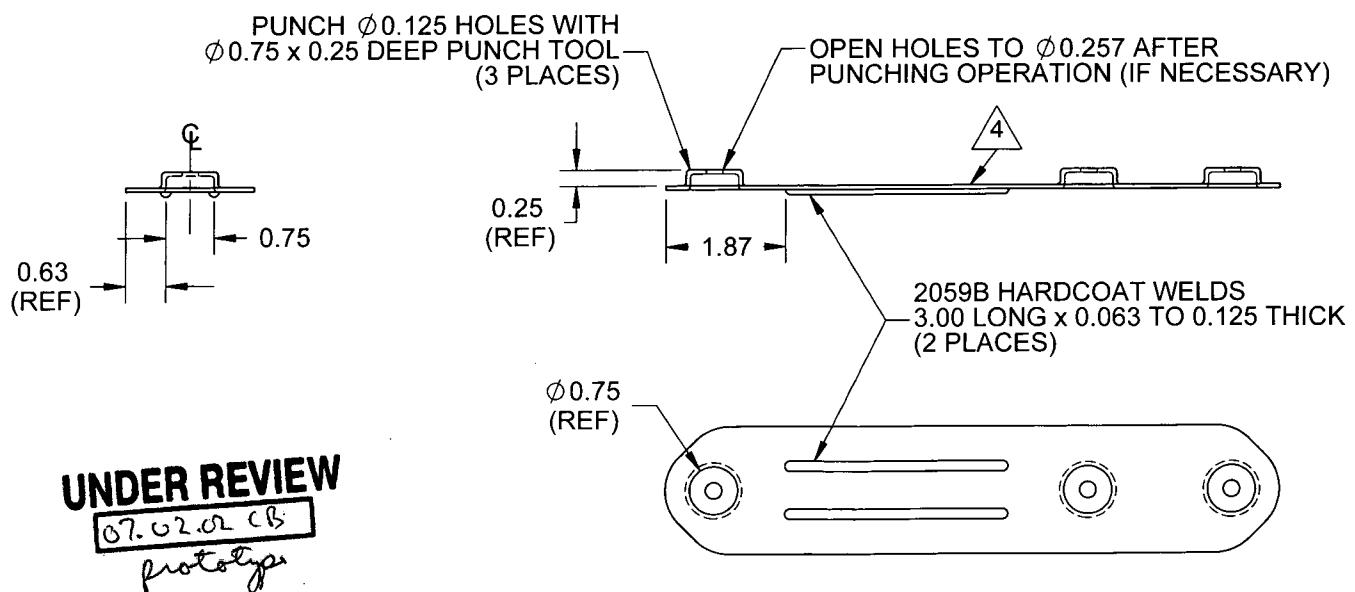
Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

PRELIMINARY ISSUE

DESIGN CB	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>AS</i>	APPROVED	DRAWING NO. D3565	REV. A	SHEET 1 OF 1
DATE 07.01.09		TITLE R44 WEARPLATE	SCALE 1:3	
REV A	DATE 07.01.09	DESCRIPTION NEW ISSUE		



D3565-1F FLAT PATTERN



D3565-1 R44 WEARPLATE

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 16 GAUGE (0.063 THICK) (REF DART SPEC M304S16GA)
- 2) FINISH: POWDER COAT "GREY SANDTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) IDENTIFY WITH DART P/N "D3565-1F" USING FINE POINT PERMANENT INK MARKER
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX
- 7) WELD PER QSI 004
- 8) PART IS SYMMETRIC ABOUT $\frac{C}{2}$

DART AEROSPACE LTD	Work Order:	30312
Description:	Part Number:	D3565-1
Inspection Dwg:	Rev:	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article X Prototype

Measured by:	SAD	Audited by:	FB	Prototype Approval:	CB
Date:	07/02/05	Date:	07.02.07	Date:	07.02.07

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

Receiving Report

Date: 06/08/18
 Supplier: Camp

Batch No: 1101873
 Dart P/O: 1704

Packing Slip: Yes No
 Invoice: Yes No
 Receipt: Cash Cr

Release Note Attached: Yes No N/A
 Waybill Attached: Yes No N/A
 Shipment Complete: Yes No N/A
 QC6 Inspection: MS CUTCE121 N/A
 Work Order: N/A

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12 CJ

Production/Admin:

Date: 06/08/18

Received/Costing:

Initial: RCP 2314

Location:

95010

Chemical Composition

Heat No.	C	Si	Mn	P	S	Cr	Ni	Cu	Al	Mo	N
4500933	0.050	0.480	1.320	0.023	0.002	18.130	8.050				0.050
4500933	0.050	0.480	1.320	0.023	0.002	18.130	8.050				0.050
AHLN1312	0.053	0.481	1.109	0.029	0.003	18.290	8.100				0.031
4502513	0.060	0.470	1.340	0.014	0.002	18.080	8.140				0.050
Y503096	0.054	0.430	1.050	0.031	0.004	18.180	8.120				0.063
4502523	0.050	0.500	1.340	0.016	0.002	18.040	8.060				0.060

Mechanical Properties

Test No	Tensile R m N/mm ²	R _{p0.2} Yield _{0.2%} N/mm ²	R _{p0.1} Yield _{0.1%} N/mm ²	Elongation A5%	Corrosion Tests	Hardness		
						HRB	HV	HRC
4500933-T	645	295		58				174
4500933-T	645	295		58				174
AHLN1312-T	685	294		51				182
4502513-T	650	301		61		84 - 83		
Y503096-T	665	319		57		86 - 86		
4502523-T	640	297		62		83 - 82		
-T								

Surface and dimensions controlled: O.K.

Printed from: T w 21

NAS

NORTH AMERICAN STAINLESS CANADA, INC.

Certificate: 6551 2 Mail To:

Customer: 007035 002

Your Order: 73-02485

METALLURGICAL TEST REPORT18 MAY 2006 NORTH AMERICAN STAINLESS CANAL
740 IMPERIAL ROAD NORTH
GUELPH, ON N1K1Z3

Ship To:

Date: 3/15/2006 Page: 1

Steel: 304

Finish: 2B

Corrosion: ASTM A262/02aS, 180 Bend-OK

NAS Order: PN 0000217 02

PRODUCT DESCRIPTION:

STAINLESS STEEL COIL, COLD ROLLED, ANNEALED AND PICKLED.
 ASTM A240/05a, 480/05, 666/03, ASME SA240/04-A05, 480/04-A05, SA666/04
 QQ-S-66D-A X MG PRM, AME5513H X MKLFIN, MEL5059D, AND 1, X CRWN MEAS
 WBM PURCHASING SPC. REVISED 8/97

REMARKS:

Material free from mercury contamination. No weld repairs.
 EN 10204 3.1 PED 97/23/EC Annex I, Para. 4.3 QQ-S-66D-A
 Material is RoHS-Compliant

Product Id	Coil #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
0391R2 A	0391R2 A	.0575	48.0000	15,420	COIL	3	1	

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States)

Heat	CM	C	CR	CU	MN	MO	N	NI	P	S	SI
91R2	US	.056	18.008	.302	1.709	.258	.067	8.151	.027	< .001	.325

MECHANICAL PROPERTIES

Product Id#	Coil #	1 d c i c r	UTS KSI	.2% VS KSI	ELONG % - 2"	Hard RB	Hard RaI	
0391R2 A	0391R2 A	F T	93.69	42.28	56.14	81.50	86.00	

RECEIVED
MAR 16 2006

BY:

QC ENGINEER

ERIC HESS

3/15/2006

Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7
Phone: (613)632-9577
Fax: (613)632-1053

*Confirmation
\$ C/HG*

*FAXED
Ac 0849 D*

Vendor Address:

Campi Steel
935 Boul. Du Havre
Valleyfield, QC J6S 5L1
Phone (800) 667-4248
Fax (450) 377-5696

Ship To:

Main Finished Goods Location
Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7

Reference	Contact	Vendor Number	PO Date	Terms	Ship Via	Expected Arrival
		VC-CAM002	Jul 17, 2006	N30	PREPAID	Jul 21, 2006

Qty. Ordered	Item Number	Description	Expected Arrival	Drop-Ship	Unit Cost	UOM	Extended Price	OK
64.0000	M304S14GA	304SS .080 Comments: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH	7/21/2006	No	7.950000	sf	508.80	OK
320.0000	M304S16GA	304/316 .063 Sheet Comments: AS ABOVE	7/21/2006	No	7.700000	sf	2,464.00	OK
320.0000	M304S20GA	304/316 .040 Sheet Comments: MUST BE 20 GA ATTN: PLS SHIP ALL STOCK AVAILABLE DO NOT HOLD FOR B/O'S - SHIP BALANCE WHEN READY	7/21/2006	No	4.750000	sf	1,520.00	OK

Comments:	Tax Summary: GST GSTME GSTND	269.57	Less: included tax	0.00
			Subtotal	4,492.80
			Total tax	269.57
			Total purchase order in CAD Dollars	4,762.37
	Entered By: CLAVOIE			
	Approved By:			